The Computer/Software/Cable/ Telephone/Cellular/ Publishing/Entertainment Industry: Creating New Paradigms

---

Steve Korn
Director
Interactive Communications Services

Three Product Themes are Changing the Way We Work and Live

- Client/server products
- Mobile communications products
- Interactive home media products

MC3-SK- 2

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Three Product Themes are Changing the Way We Work and Live

- Client/server products
- Mobile communications products
- Interactive home media products

MC3-SK- 3

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Three Product Themes are Changing the Way We Work and Live

- Client/server products
- Mobile communications products
- Interactive home media products

MC3-SK- 4

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Three Product Themes are Changing the Way We Work and Live

- Client/server products
- Mobile communications products
- Interactive home media products

MC3-SK- 5

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Predicting is Difficult, Especially the Future

"What would someone from Maine have anything to say to someone from Texas?"

Henry David Thoreau, 1844

MC3-SK- 6a

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Predicting is Difficult, Especially the Future

"The Americans need it (Bell's invention), but we do not. We have plenty of messenger boys."

Post Office
Chief Engineer, 1878

MC3-SK- 6b

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Predicting is Difficult, Especially the Future

"Who wants to hear actors talk?"

H. Warner, President,
Warner Brothers
Pictures, 1927

MC3-SK- 6c

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Economic History

- Cyclic vs. permanent change
  - Oil prices
  - Mule and tractor
- Electricity and unit-drive motors
- Marconi and Sarnoff

20 to 40-year lags are typical

Notes

© 1993 by INPUT. Reproduction Prohibited.

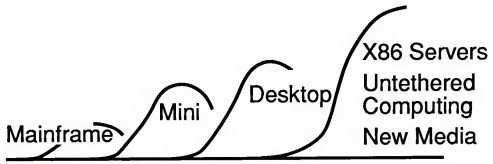
It's Communications, Not Computing

- Rewrite of Excel
- C:\ vs. push-button phone
- Internet, SIG, talk radio, CNN call-in
- "Serious modem dependency"

Notes

© 1993 by INPUT. Reproduction Prohibited.

On the Cusp of Change... Again



MC3-SK- 9

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Big Idea: Bring Office Communications to Field People

- Telephone/voice
- Paging
- E-mail
- File transfer
- Information/news delivery

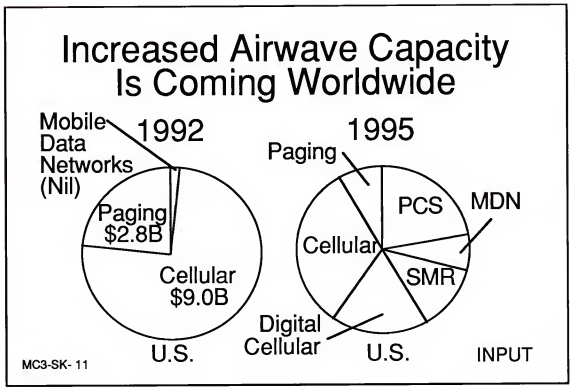
MC3-SK- 10

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.



Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

New Capacity from Several Sources

- Analog ⟶ Digital cellular
- Cellular Digital Packet Data (CDPD)
- Specialized Mobile Radio (SMR) service
- Personal Communications Service (PCS)
- One- and two-way nationwide wireless networks

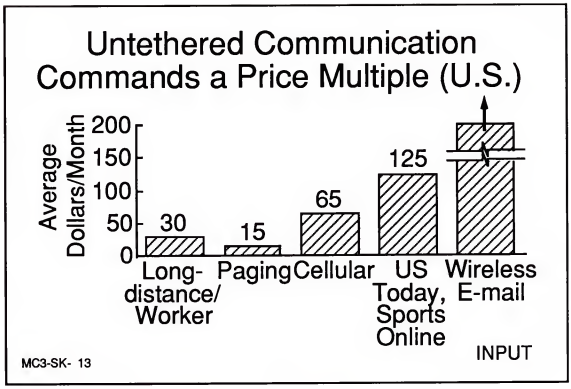
MC3-SK- 12

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.



Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Anticipated Developments and Opportunities

- Digital cellular subsidies
- More granular cellular pricing
- Bypass to evade LEC "tax"
- Substitute communications for rent
- "Software agents" and gateway utilities
- Seamless E-mail

Notes

© 1993 by INPUT. Reproduction Prohibited.

Interactive Home Media Products—The $0 B Business

- 500 Channels
- Information Highway
- Global Village
- "Cyberspace"

MC3-SK- 15

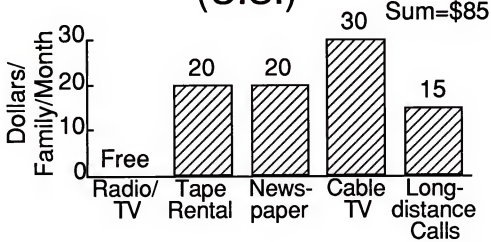
INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

What People Pay for Today (U.S.)



INPUT

MC3-SK- 16

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

What Will Consumers Buy—the "Killer" Application?

- People hate paying
- 500 more of same?
- Personal choice/personal interactivity
- Not a PC
- Video-On-Demand (VOD)
- Home shopping

INPUT

MC3-SK- 17

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

Cable Vs. Telephone

Cable	Telephone
• Passive switching	• Active switching
• One-way	• Two-way
• Limited billing	• Sophisticated billing
• No business linkage	• Virtually all
• Long connect-time	• Short connect-time
• Heavy debt	• Less debt

Notes

© 1993 by INPUT. Reproduction Prohibited.

Home Information Technology Market

- Content
- Package and warehouse
- Distribute and sell

MC3-SK- 19

INPUT

Notes

9/27/93

© 1993 by INPUT. Reproduction Prohibited.

"Alliance Shock"

- McCaw–AT&T
- Paramount–Viacom
- Time Warner–Silicon Graphics
- Time Warner–Scientific Atlanta
- TCI and Time Warner
- CableSoft
- AT&T–Eo/Go

Notes

© 1993 by INPUT. Reproduction Prohibited.

The Future

- High-stakes game for cable and telephone
- Test beds multiply
- System architectures compete
- More confusion

Notes

© 1993 by INPUT. Reproduction Prohibited.

"Nothing Is Essential Until It's Discovered."

Tom Peters

INPUT strategy: Supply to the whole rather than choose sides.

INPUT

Notes

© 1993 by INPUT. Reproduction Prohibited.

INPUT®

STEVEN P. KORN
DIRECTOR
INTERACTIVE COMMUNICATIONS SERVICES

PROFILE

CAPABILITIES

- Mr. Korn has 19 years product management, business development, and consulting experience in information services, telecommunications, and software. Vertical market experience includes the media, travel, retail, mortgage banking, and state and local government.

BACKGROUND

- With INPUT, Mr. Korn is launching the new Interactive Communications Services program. The focus is on new interactive services made possible by the convergence of three key technologies: computer, cable, and telephone.

- Prior to joining INPUT, Mr. Korn co-founded the Radio Response Company, a start-up business that specialized in interactive listener lines for broadcast radio. The company enabled radio stations to generate additional revenue, create a data base of listeners, and differentiate their product.

- Previously, Mr. Korn was Vice President of Products and Director of Strategy for Citicorp Information Management Services. Products included an on-line travel audit service and a preferred rate hotel reservation service for large travel agencies that were integrated with the airline reservation systems.

- Mr. Korn was also Manager, EDI Product Management with GE Information Services from business inception through customer #2000. His responsibilities included both EDI software products and network services.

- Earlier, Mr. Korn was a senior associate with Booz, Allen & Hamilton. He specialized in telecommunications and the application of technology. Mr. Korn began his career designing rf circuits for a line of VHF and UHF pagers.

EDUCATION

- M.B.A. (Stanford Graduate School of Business), Palo Alto, CA

- M.S. (Electrical Engineering), New Jersey Institute of Technology, Newark, NJ

- B.S. (Electrical Engineering), Newark College of Engineering, Newark, NJ